ART. XV. SOME NEW AND UNDESCRIBED JAMAICAN BUTTERFLIES

By A. Avinoff and Nicholas Shoumatoff

(Plate XXXVI)

The present paper contains descriptions of some of the new forms of butterflies found on Jamaica during the five visits we made to this island in the summer seasons between 1931 and 1940. It constitutes a preliminary note which will eventually be succeeded by a complete list of the Rhopalocera recorded by us from this island. Our studies have amplified to a rather considerable degree the present knowledge of the Jamaican fauna. The Cockpit Country, which was but slightly investigated heretofore and left almost a virgin field for lepidopterists, yielded the major portion of these novelties as well as several additions to the fauna as it will be discussed in a subsequent publication. While all of our investigations were carried on during the periods between June and August, one new species of the Hesperiidæ was discovered by Mr. Chester Roys in the course of a brief visit he made to Jamaica in the spring season. The present descriptions record not only new forms but also outline the characteristics of the females of three species which were heretofore known only from the males. The type specimens, together with the rest of the material collected on Jamaica, are the property of the Carnegie Museum since all the material assembled on this island was turned over by us to that institution.

Nathalis iole Bsd. ab. **albida** nov. (Pl. XXXVI, figs. 1, ♂; 2, ♀)

On an isolated elevation of over 3,000 feet called Low River, or All Sides, in Trelawney, a peculiar aberration of *Nathalis iole* was found to be predominant in July of the year 1933, as compared with the normal kind. The majority were decidedly light in color, of a varying degree of whitish lemon. The extremely light individuals may be called white with a very slight yellow tinge. This yellowish tint is scarcely more expressed than in the female of *Terias messalina* F. One extreme specimen of the male is an exaggerated example of such an albinic form. Two females

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also show this same white tint from both sides. One of them approximates the lightest specimen among the males whereas the other has a peculiar admixture of the orange tint which, added to the white portions of the wings, produces a cream color similar to that of some albinic females of *Colias* with orange males (*Colias edusa* F., *myrmidone* Esp., *aurora* Esp., *diva* Gr.-Gr.). The absence of the lemon yellow color is noticeable also on the reverse sides of both males and females and produces some peculiar effects of a dull gray tint on the hind wings which do not show the greenish hue of the normal *iole*. Although one might feel a legitimate reluctance to describe any aberration, yet in this case nomenclatorial designation seems to be desirable in order to signalize a certain regional phenomenon which is not duplicated anywhere in the species. Nowhere throughout the wide range of the distribution of *iole* in North and South America and the Antilles was such a light aberration recorded. In all other localities of Jamaica where *iole* is found it appears in the typical form, never showing any tendency toward a lighter ground color. It is only on this isolated open grassy top of Low River, which forms a peculiar ecological station as compared with the surrounding country, that this whitish form was decidedly predominant, although a certain percentage of normal specimens also flew together with this striking light form. It is worth noting that all these specimens were collected in 1933. In subsequent years *Nathalis iole* was not seen at all in this region although it was thoroughly searched for further material of this aberrant form. In the collection there are altogether six normal specimens of *iole* from that locality. A set of six individuals is distinctly lighter and readily distinguishable from *iole* from other parts of Jamaica and from anywhere else. There are seven specimens having the exceptionally whitish background which constitutes the typical form of the new aberration named here as *albida*. Systematically, the problem of similar local aberrations has a definite interest. It seems as if conditions of a certain ecological setting produce a distinct mutational effect. Such forms could not be called races since it is not a case of an exclusive local isolation. Instances of this order reflect a predominant regional alteration of an otherwise stable type. It may be a race in the making. It is unquestionably something other than an accidental aberration, as it has a certain territorial base. Similar phenomena should stimulate further studies in order to ascertain other analogous fluctuations of the regular types.

All these considerations seem to justify a special designation of this predominant local aberration as *N. iole* ab. *albida* nov.

Chlosyne pantoni Kaye, ♀ (Pl. XXXVI, figs. 7, ♀ ; 8, ♀ ; 9, ♂)

Chlosyne pantoni Kaye, The Entomologist, 1906, vol. 39, p. 52, pl. 2, fig. 6, ♂.

The heretofore unknown female of this species found in the Cockpit Country near Troy, Warsop, and Belmore Castle, in the months of June and July, differs considerably from the male in the following respects. The abdomen has whitish yellow edges of the segments instead of russet edges as in the male. The size of the female is considerably larger than the male, the length of the front wings being 1.25 inches as compared with the one inch wing of the male.

Upper side: The wings are brownish black; all the markings on the front wings are light yellow instead of brick-red, as in the male. The extent of the light maculation is more restricted, especially the basal part. There are seven light yellow antemarginal spots smaller than in the male. The costal extramesial band is divided by veins into four distinct maculæ which are confluent in the male. The transverse light band in the middle of the cell is divided from the two oblique light spots in the discus of the wing. In the male this portion of the pattern forms a continuous area. At the base the light spots in the median cell and near the inner edge are much reduced. In two of the twelve females caught they almost disappear altogether. The hind wings have a light yellow basal spot occupying the major part of the median cell and extending beyond it to vein 1. A mesial band of seven uneven spots, of a light yellow color similar to that of the basal maculation in all the light patterns of the front wings, occupies the intraneural region. A band of brick-red spots shows these maculations coalescent in the front portion and divided into triangular patches in the lower part. There is an antemarginal row of crescents of light yellow color occupying the intraneural spaces. The aspect of the hind wings is in close analogy with the reverse of the hind wing in both sexes, with the exceptions, (1) that the inner part between the edge and first vein is entirely fuscous brown, and does not show the light spots, (2) that the mesial band is not divided into two rows of light spots, and (3) that there is only a single row of antemarginal lunulæ while on the reverse they are in a double formation.

Under side: Upper wings dark brown with a somewhat lighter yellow pattern than on the upper side, with some additional maculation, namely three light yellow lunulæ at the apex continued by faintly indicated antemarginal crescents and a small yellow spot divided by three veins at the close of the median cell. There are traces of brick-red color at the

base of the wing in the inner edge of the two antemarginal yellow spots between veins 2 and 4 and in the intraneural portion at the outer edge.

Hind wing: Light basal pattern as in male but of a lighter yellow tinge since in the male these portions are of a deeper straw-yellow color; the brick-red antemarginal spots are smaller and form a band of divided maculæ.

Discussion: There are certain characteristics in regard to the female of *pantoni* which have to do with the systematic and distributional peculiarities of the genus. It is the outstanding example of sexual dimorphism in the genus. *Chlosyne narva* F. and *saundersi* Dbl.-Hew. show a slight dimorphism, in the latter case the female being lighter than the male. The light coloration of the maculæ of the front wings is typical for a whole group in the genus *Chlosyne*. Another group of the genus, to which *marina* Hbn., *fasciata* Röb., and *poecile* Fld. belong, although not dimorphic, shows however in both sexes a general type of coloration similar to the female of *pantoni*, namely light spots with the exception of an antemarginal band of reddish spots on the hind wings. If this kind of coloration may be taken for the more primitive, the female of *pantoni* would show such archaic traits, whereas the male differentiates in the direction of the uniform brick-red or russet color of the pattern of the upper side. The close similarity of the upper side of the female of *pantoni* with the reverse of both sexes is another indication that it is the upper side of the male that is undergoing the change in comparison with the presumably more ancient type. It is interesting to note that the females of the two representatives of *Chlosyne* from Porto Rico and Cuba do not display any dimorphism, since they show the same russet red pattern as their corresponding males.

The questions of the relationships of *pantoni* on one side, and *perezi* H.-Sch. of Cuba and *tulita* Dev. from Porto Rico on the other side, should be settled in the sense of ascribing to the Jamaican butterfly the systematic position of specific independence. The difference of the Cuban species, bearing wide antemarginal spots, is readily apparent as are also the considerable differences of the under side when compared with *pantoni*. The Jamaican representative is closer to the Porto Rican *tulita*. In the male the most important characteristic is the complete double row of antemarginal spots in *tulita* which is reduced to one row in *pantoni*. Furthermore on the hind wings the black portions of the pattern are considerably reduced so that the russet tint forms the predominant background beyond the fourth vein. Also there is a difference in the under

side in the separation of the intraneural maculation in *tulita* and the russet color of the spot in the median cell. The dimorphic character of the female adds a further ground for a specific separation of *pantoni* from *tulita*.

It is also of interest to observe that the species of *Chlosyne* with a light maculation in both sexes happen to occur in Mexico and Central America. The existence on Jamaica of a *Chlosyne* with a light yellow pattern in the female may be an indication that this insular form has preserved to a closer degree, than the species of *Chlosyne* of the islands of Cuba and Porto Rico, a certain phylogenetic relationship with the Central American representative of the genus. Such a picture of systematic and phylogenetic relationships may find an explanation in the geological past of the Antilles and possibly points toward a former connection of Yucatan with Jamaica. It would seem plausible to expect that further explorations on the island of Haiti will record a form from that island related to *pantoni* and *tulita*. This hypothetical butterfly might help to settle the question of the specific relationships of the Jamaican and Porto Rican representatives of the genus.

A figure of the male of *pantoni*, under the name of *seitzi*, is shown in the "Macrolepidoptera" of Seitz on plate 91h. The under side is not figured, either by the describer or by Seitz, so that it was found desirable to reproduce, in the present paper, both sides of the male for comparison with the corresponding parts of the female.

Anaea johnsoni sp. nov. (Pl. XXXVI, figs. 3, ♂; 4, ♂; 5, ♀; 6, ♀)

Anaea johnsoni is named in honor of Mr. Frank Johnson who has been particularly interested in studies of *Anaea* in addition to his interest in the other groups of Rhopalocera which have attracted his attention during his distinguished career of assembling and investigating the butterflies of the Western Hemisphere.

The new *Anaea* was found in the Cockpit Country of Jamaica and was recorded from two places, Coleyville, near Christiana, and Cave River. In these regions the Jamaican form of *troglodyta* F. is not found since this butterfly occurs in the lower regions of the island.

Male: The coloration is vivid russet as in *Anaea glycerium* and *cratais* Hew. The shape of the wings is falcate as in both of these species. The exterior outline indicates a slight protrusion on the second and fifth vein which is not so marked by far as in *glycerium*. On the other hand the slight outward curve on the fifth vein is different from the even concave shape

of this part of the vein in *cratais*. The hind wings have a slightly undulating outline similar to those of *cratais* but do not produce the distinctly scalloped effect of *glycerium*. The tails on the fourth vein are elongated and narrow somewhat like in *glycerium* and not so short as in *cratais*. On the front wings the dark pattern on the bright russet background consists of a brownish black apical portion extending through the discocellular toward the exterior part of the wing, where the dark color gradually merges with the russet tint of the background. The band of russet runs transversely in this apical portion and is divided by a brownish black band in the intraneural space 3-4 from the russet ground color below. This is a character which is different from the majority of the specimens of *glycerium* Dbl.-Hew., and from some of the specimens of *cratais* Hew., where the light apical band merges with the background because of an interruption of the dividing dark band. The hind wings show on the russet background a transverse dark mesial shade which forms a curved line and is far from being as straight as in *glycerium* and *cratais*. Altogether, the male of the new species is best compared with *cratais* from which it is differentiated by the position of the mesial dark maculæ and by the greater development of the dark pattern in the apex. The apical black portion is running deeper inwardly along the front edge than in that species. Also, the russet subapical transverse band is narrower than in *glycerium* and in *cratais*. The under side is very much like the reverse of *glycerium*. It is of a purple reddish brown tinged with a lighter silvery striation; it shows a transverse band through the middle of the wings outlining the darker basal area and another curved darker band in the exterior half of the hind wing. The character of the coloration is less motley than in *glycerium* but of a brighter red brown hue and marked by darker striation than in the somewhat satin-like reverse of *cratais*.

Female: The russet coloration is lighter than in the male with a yellowish russet color, still slightly lighter, in the transverse apical band, and in the band of maculation in the outward part of the wing below the dark apical area. The dark pattern, outlining inwardly this latter band, is particularly characteristic and perhaps may best be described as a dark crescent with points directed inwardly, in the 2-3 inter-space, and an arrow point directed outwardly, in the 1-2 intraneural section, shifted considerably to the exterior border without any contact with the crescent. This pattern can be compared with the corresponding portion in the female of *Anaea titan* Feld., which shows much similarity in general distribution of the pattern having, however, a much straighter outline of the sharply

falcate wings. In *titan*, besides, the dark marking in the 1-2 interspace in the left wing has the shape of a figure three, and is not drawn into a point in the middle to suggest the shape of an arrow point, as it is in the new *Anaea johnsoni*.

On the hind wings the coloration of the lighter band is clearly seen in the front part between the more shaded brownish areas which form inwardly a more irregular outline than in either *glycerium* or *cratais*, again not unlike the pattern of *titan*. It should be kept in mind that the general coloration of the female of the new *Anaea*, as compared with *titan* Feld., is of a distinct russet color and not of the ochre yellow tinge predominant on the front wings of the latter. The tails on the fourth vein are as long or even longer than in *glycerium*.

The under side of the wing in the female is like that in the male but lighter; the arcuate shadows of a motley purple-brown are more clearly indicated. It may be described as occupying an intermediate position between *glycerium* and *cratais* with regard to this reticulation, or, to be more specific, intermediate between *glycerium* and that particular form of *cratais* which is not characterized by the presence of silvery white spots. In one of the three females, a suffusion of dark specks is concentrated into scattered spots as in some individuals of *cratais*.

Discussion: This new *Anaea*, which should be placed close to *cratais* and suggests a few traits of *ryphaea* Cr. and *eurypyle* Fld. in the general characteristics of the dark apical part, has a facies distinct from *glycerium* for which it apparently was taken by former investigators who recorded the latter species from Jamaica. The initial mistake was made by Godman and Salvin in the "Biologia Centrali-Americana" and perpetuated in later writings like those by Kaye and other authors. Through the courtesy of Mr. Johnson, photographic prints showing two specimens from Jamaica in the Godman and Salvin collection and in the Hewitson collection of the British Museum were made available to us for examination. Both male and female are typical *Anaea johnsoni* although they are erroneously labeled *Anaea glycerium*. The under side of the male bears a silvery white spot near the front edge of the hind wings, similar to an analogous maculation found occasionally in *cratais*. The apices of the front wings in these specimens seem not to be so strongly falcate as in those taken by us in Jamaica. It may be a case of seasonal variation which happens to be manifest in some instances in other species of the genus.

Anaea "glycerium" was recorded by Kaye from the Blue Mountain region, a different part of the island from the habitat of our new *Anaea*. A

painting in water color by Miss Lilly Perkins of a Jamaican *Anaea* looks, in the outline of the front wings, suspiciously like a true *glycerium*. Could it be possible that the true *glycerium* is also existing on the island after all? Incidentally, attention should be drawn to the fact that Seitz, in the volume on American Butterflies (Pl. 118, in line c), figures what is apparently a *cratais*, or another related form, which closely resembles the new *Anaea*. The apical portion in that figure is closer to that in *johnsoni* than it is in the other figure of *glycerium* on Seitz' plate, which is correctly identified as to the species but is erroneously labeled "female" when it actually is a male. Mr. Wm. P. Comstock has kindly drawn my attention to these facts.

Altogether six specimens of this new *Anaea* were collected by us. Paratypes of both sexes of this species are preserved in the collection of Mr. Frank Johnson, a specimen of the male having been taken previously.

Telegonus roysi sp. nov. (Pl. XXXVI, fig. 12, ♂)

Related to *Telegonus cubana* Mabille-Boullet, described in Ann. Sci. Nat. (zool.) Paris (ser. 9), vol. XVI, p. 77, 1912. Size smaller than *cubana*. Body dark brown, scales at tip of body only faintly lighter. Wings somewhat elongated and narrow; upper side dark brown, of a darker tint than *cubana*. The two dark bands on the front wing are narrower and less perceptible than those in *cubana*. The external band runs in a straight line from the second to the fourth vein and is very faintly indicated in the apical part. The band in the discus crosses the discocellular. The hind wings are uniformly dark brown without any indication of the band. The bases of the wings and the thorax do not show the ochre brown hair covering which is typical for *cubana*. The fringes on both wings are dark, without any trace of ochre color at the lower angles of the hind wings. On the reverse side the ground color is dark brown with a faint indication of the pattern on the front wings. The hind wings show two dark brown bands, discal and antemarginal, indicated by a slight suffusion of dull ochreous scales on the rest of the surface of the wing. The antemarginal dark bands are not accentuated outwardly by the ochreous outline typical for *cubana*. One specimen, a male, was caught by Chester Roys at Bath in the month of March. This new species is described in his honor.

Discussion: Roswell C. Williams, Jr., figures a female of *cubana* from Jamaica on pl. 34, fig. 5, in "Transactions of the American Entomological Society," vol. 53, 1927. It shows a distinct yellowish fringe on the hind

wings, a light tip of the body and a well marked yellowish outline of the dark antemarginal base on the reverse of the hind wings, with a special accentuation of this light pattern in the portion of the wing near the hind angle. These characters are absent in the insect described here as *Telegonus roysi* and distinguish specimens of *cubana* found not only on the island of Cuba, but also on the island of Haiti, as it is represented by a specimen from the latter island in the Holland collection of the Carnegie Museum. This individual, collected by Chipman, is practically identical in every respect with the one figured by Williams, including the characteristic reverse of the hind wings and the light fringes. The new Jamaican insect shows some resemblance to *Telegonus anausis* Godman and Salvin, described (Proc. Zool. Soc. London, 1896, p. 519) from St. Vincent, Grenada, Dominica, and Hispaniola. There is an authentic specimen of *anausis* in the Carnegie Museum in a collection acquired from Sir Frederick Ducane Godman. It was taken by H. H. Smith on St. Vincent in the Lesser Antilles.

This form, *Telegonus anausis*, it may be said is in a way related both to the present new species from Jamaica and to *cubana* with which it has more affinity. It differs from *roysi* in having a light tuft at the end of the body, a touch of ochre in the fringe, and an ochreous spot at the lower outside edge of the dark antemarginal band of the reverse side of the hind wings. On the upper side it shows the ochre-brownish covering of the basal portion of both wings, typical for *cubana*. On the other hand it differs from *cubana* by a restriction of the ochre scales in the fringes and on the reverse of the hind wings. This *Telegonus anausis* compares closely with another specimen in the collection of W. J. Holland, from "Venezuela," without further designation of locality. The upper side is very similar to the specimen from St. Vincents, but the reverse shows the dark bands on both wings projecting on a lighter background. The dark bands on the hind wings are accentuated by the lighter scalloped marking, but the fringes are dark. This Venezuelan form agrees well in characteristics with *Telegonus alpistus* Mabille, described in "Genera Insectorum," Fasc. 17, p. 25, Hesperidæ, 1903, from Santa Catharina, Brazil. The description calls for the yellowish scalloped outline of the band and seems to be of a form not unlike a larger form called *ampyx* Godman in Seitz, p. 167, b. This latter insect shows, however, less of the ochreous suffusion on the reverse and is entirely unlike the true *ampyx*, as figured, from the only specimen then known to the authors, in "Biologia Centrali-Americana," pl. 77, figs. 11, 12. The true *ampyx* has a distinct light

marginal patch at the lower angle of the reverse of the hind wings which are much rounder in shape.

The describer of *alpistus* compares this species with *Telegonus anaphus* Cramer which shows, in this latter group of forms, the maximum in the spread of the ochreous tint on the hind wings. Mr. Marston Bates in his "Butterflies of Cuba," published in 1935, refers to *cubanus* as a subspecies of *anaphus* and not of *alpistus* as was done by the joint describers of the Cuban insect. Roswell Williams shared the view of Bates, in a tentative way, by treating *Telegonus cubana* as a good species, but advancing the opinion that it is "probably an insular race of *anaphus*."

It was deemed proper to review all these references to related forms. According to this grouping, *alpistus*, *cubana*, *anausis*, and the form figured as *ampyx* by Seitz, belong to one close cycle. *T. anaphus* seems to be somewhat on the periphery of the cycle with an extreme development of the yellow. On the opposite periphery of the cycle stands the new *roysi*, as the smallest and darkest of all, with an absence of ochreous markings on the reverse of the hind wings and with a peculiar absence of hairlike shiny ochre-brown scales on the base of both pairs of wings on the upper side.

A problem which remains unsolved at the present is the relationship of this new *Telegonus* to the insect from Jamaica figured by Williams as *cubana*. The form reproduced on the plate by Williams seems to be sufficiently well fitted into the conception of *cubana*, so that it appears improbable that it could be correlated specifically with *Telegonus roysi*. If *cubana* is to be considered not as an independent systematic entity but merely as a race of *anaphus*, we shall have to apply the same criterion to *roysi* and thus come to the misleading conclusion of accepting two local races of the same species in Jamaica. It seems justifiable to consider this group as being composed of a set of closely related but distinct specific entities with two species found on Jamaica, namely the true *cubana*, which is practically indistinguishable from this insect from the other Greater Antilles, and another divergent dark member of this group, *Telegonus roysi*. Further investigations and more abundant material will be necessary to settle this question with certitude, but meanwhile the best possible course is to assign to *roysi*, at least provisionally, the taxonomic position of a valid species. It deserves this position better than the rest of the group which are characterized by a peculiar suffusion of hairy scales with a glossy golden sheen which do not show on the uniformly dark background of *roysi*.

A comparative study of the armature of the male in related forms supports these considerations. *T. roysi* shows the greatest development of the sculptured points covering the internal process of the harpa. This feature may be considered a distinguishing character in the various forms. In *anausis*, *jaira* Butler, *galesus* Mabille, and *anaphus*, the points are relatively less developed. The points on the process are particularly well developed in *roysi* and *cubana* and in the more remotely affiliated species *chiriquensis* Staudinger. Only *T. roysi* shows an occasional double formation of these points and the whole process is altogether heavier than in any other form of *Telegonus*. There is another character which is diagnostic for *roysi;* namely, the extremely obtuse points of the harpæ approximate a right angle closer than in any other form of *Telegonus*. Although the armatures in *roysi* and *cubana* closely resemble each other with respect to this angle, nevertheless the size, heaviness, and exaggerated sculpture of the process in *roysi* is sufficent to distinguish it from *cubana*.

Grateful acknowledgement is due Mr. Ernest L. Bell and Mr. William P. Comstock for their helpful suggestions and their courtesies in pointing out the affinities of this form to *anausis* and *cubana*.

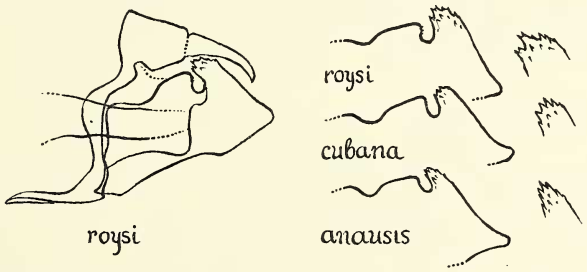

FIG. 1. Genital armature of male of *Telegonus roysi* sp. nov., compared with related forms.

Choranthus lilliae Bell, ♀ (Pl. XXXVI, figs. 10, ♂; 11, ♀)

Choranthus lilliae Bell, Entomological News, vol. 42, Oct., 1931, pp. 220-222, fig. of male genitalia.

The female is distinctly different in aspect from the male. Upper wings are dark brown without any trace of the russet coloration in the discocellular observed in the male. The pattern is reduced to three russet maculæ of a somewhat lighter tinge than in the male. They are arranged in the following fashion: between the second and third veins there is a triangular marking, and a smaller one above it between the third and

fourth veins. There is a faint indication of russet streaks between the fifth and seventh veins. These two units of marking, mesial and apical, do not constitute a continuous band as in the male, but are distinctly interrupted by the dark coloration of the background of the wings. The hind wings are more or less uniformly dark brown with a slight tinge of a reddish coloration in the center part of the wing.

On the under side, both sexes are more closely alike. The band of spots in the mesial part of the front wings is lighter and composed of more clearly separated patches. The tint of these spots is much lighter than in the male. The discocellular shows a touch of the russet coloration. A characteristic of the female, as compared with the male, is the uniform tone of the dark cilia of both wings which are marked by a russet tinge in the male in the hind corners of the wings. The unique specimen is unfortunately in a poor state of preservation, the wings being partly torn on one side. The female of this rare species was captured, with a few males, in the Blue Mountains at Cornpuss Gap, near Bath. In addition, *lilliae* was found also in the Cockpit Country at Warsop and Belmore Castle. This species is extremely difficult to catch, being shy and apparently having excellent vision. It may occasionally be found sitting on some isolated leaf or branch and at the slightest sign of danger it flies straight upward to some inaccessible part of the crown of a neighboring tree.

Rhinthon thermae Kaye, ♂ (Pl. XXXVI, fig. 13, ♂)

The female was described by Kaye in "Transactions of the Entomological Society of London," 1925, p. 495, on the basis of one female specimen in his collection. Mr. Kaye refers to another specimen in the collection of the Institute of Jamaica. The male is figured in "Transactions of the Entomological Society," vol. 79, 1931, plate 39, fig. 14. The male, of which we secured a few specimens, differs from the female as follows: both pairs of wings are narrow and elongated, especially the front wings. The pattern of the transparent spots is similar to the one in the female. These spots are smaller. The patch between the second and third vein is somewhat rhomboid. The transparent patches in the median cell are reduced to two elongated maculæ divided by a black streak, instead of the three confluent marks in the female having an E shape as noted by the describer. Besides Bath, where this species was originally discovered, and later on found by us, *Rhinthon thermae* also occurs in other parts of the island, namely at High Gate and Cave River, in the vicinity of the Cockpit Country.

EXPLANATION OF PLATE XXXVI

New and undescribed Jamaican butterflies.

All figures are of natural size.

FIG. 1. *Nathalis iole* ab. *albida* nov. ♂
" 2. " " " " " ♀
" 3. *Anaea johnsoni* sp. nov. ♂ Upper side.
" 4. " " " " ♂ Under side.
" 5. " " " " ♀ Upper side.
" 6. " " " " ♀ Under side.
" 7. *Chlosyne pantoni* Kaye ♀ Upper side.
" 8. " " " ♀ Under side.
" 9. " " " ♂
" 10. *Choranthus lilliae* Bell ♂
" 11. " " " ♀
" 12. *Telegonus roysi* sp. nov. ♂
" 13. *Rhinthon thermae* Kaye ♂